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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,448	07/30/2001	Alfred Johann Peter Haszler	APV31193	7040

7590

06/16/2003

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EXAMINER

COMBS, JANELL A

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 06/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,448

Applicant(s)

HASZLER ET AL.

Examiner

Janelle Combs-Morillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6,8 and 10-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8 and 10-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 6, 8, 10-25, 27, 28, and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 799,900 A1 (EP'900) in view of Sale et al (US 3,685,229) and optionally "Metals Handbook Desk Edition" pp 445, 450.

EP'900 teaches a high strength Al-Mg alloy used in large welded constructions wherein said alloy comprises (in weight%): 4.5-7% Mg, 0.4-1.2% Mn, 0.4-5% Zn, up to 0.3% Zr, up to 0.3% Cr, up to 0.3% Ti, up to 0.5% Fe, up to 0.5% Si, up to 0.4% Cu, balance consisting of aluminum (page 2 lines 41-43). EP'900 teaches that said alloy maintains corrosion resistance, weldability, formability, bendability, and has improved strength (page 2 lines 18-19, page 6 lines 16-18). EP'900 does not teach a) the PS/UTS ratio in the H or O temper of said alloy, or b) said aluminum alloy is corrugated and secured to a parallel plate or sheet.

Concerning item a), though EP'900 does not teach the PS/UTS ratio in the H or O temper of said alloy, the examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the

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same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims (such as PS and UTS) are necessarily present.

Concerning item b), Sale teaches corrugated structures made from weldable and formable aluminum alloys (column 4 lines 8, 16, 20, etc) used for structural applications. The corrugated lattice can be placed in-between two parallel sheets of the same composition and welded (abstract, see Figures, column 4 lines 14-15). Though Sale shows in Fig. 1 and Fig. 4 that only one parallel plate is welded to the corrugated structure, Sale does teach a side wall (#78) in Fig. 11 can be secured (by welding, column 4 lines 16-17), for instance, when the corrugated structure is used as a platform or floor structure (column 7 lines 31-35). Sale therefore teaches a corrugated structure welded inbetween two plates, made from weldable and formable aluminum alloys (column 4 lines 8, 16, 20, etc) used for structural applications. Because EP’900 teaches that said alloy composition has improved strength, and is weldable and formable, it would have been obvious to one of ordinary skill in the art to use said alloy in the corrugated aluminum alloy structure taught by Sale.

Concerning dependent claims 2, 15, 20, 25, the well known definition of a “sheet” overlaps the presently claimed thickness ranges (see Metals Handbook p 445, etc.).

Concerning dependent claims 3, 4, 16, and 18, as stated above, EP’900 teaches an overlapping alloy composition. Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2112.01, *In re Best* 195 USPQ 430, *In re Malagari*, 182 USPQ 549, *In*

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re Titanium Metals Corporation of America v. Banner, 227 USPQ 773 (Fed. Cir 1985), *In re Woodruff*, 16 USPQ 2d 1934, and *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

Concerning dependent claims 6, 9, 21, it is known in the art to clad aluminum alloys with an aluminum alloy of higher purity (or low alloying elements) in order to increase corrosion resistance (see Metals Handbook p 450, etc.). It would have been obvious to one of ordinary skill in the art to clad the Al-Mg-Zn corrugated alloy with an alloy of higher purity (or low alloying elements) than said Al-Mg-Zn because it is well known (and taught by Metals Handbook p 450) that said cladding improves corrosion resistance.

Concerning dependent claims 7, 8, 12, 17, 19, 22 as stated above, the prior art teaches securing the corrugated stiffener to plates of identical composition by welding (see above).

Concerning dependent claims 13, 14, 23, 24, 27, 28, 32, 34 which state that said composite panel is suitable for ship building or marine offshore construction, the examiner points out that because the prior art teaches that said corrugated structure has improved strength (EP'900 page 2 lines 18-19, page 6 lines 16-18), and useful for structural applications (Sale, etc), then it would have been obvious to one of ordinary skill in the art to use said corrugated structure in a variety of applications, including marine and ship building applications.

3. Claims 26, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP'900, Sale et al, optionally "Metals Handbook Desk Edition" pp 445, 450, and optionally in further view of "Aluminum and Aluminum alloys".

EP'900, Sale et al, and "Metals Handbook Desk Edition" do not specify the welding type. With regard to the process steps, it is well settled that a product-by-process claim defines a product, and that when the prior art discloses a product substantially the same as that being

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claimed, differing only in the manner by which it is made, the burden falls to applicant to show that any process steps associated therewith result in a product materially different from that disclosed in the prior art. See MPEP 2113, *In re Brown* (173 USPQ 685) and *In re Fessman* (180 USPQ 524) *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Because applicant has not shown that the product taught by the prior art is materially different from the presently claimed product, it is held that EP'900 combined with Sale and optionally "Metals Handbook Desk Edition" has created a prima facie case of obviousness of the presently claimed invention.

Alternatively, "Aluminum and Aluminum Alloys" teaches that aluminum and aluminum alloys can be joined by a variety of welding processes (see pages 390-393), including the welding by laser welding (instant claim 26) or welding by friction stir welding (instant claims 29 and 30). These welding techniques are used to weld aluminum to similar and dissimilar aluminum alloys (see page 393, 390, etc.). Because "Aluminum and Aluminum Alloys" teaches that said welding processes are suitable for welding aluminum, it would have been obvious to one of ordinary skill in the art to laser weld or friction stir weld (as taught by "Aluminum and Aluminum Alloys" p 390-393) the corrugated structure as taught by the combination of EP'900, Sale, and optionally "Metals Handbook Desk Edition".

Response to Amendment/Arguments

4. In applicant's response filed on March 25, 2003, applicant amended claims 1, 5, 10, 11, 17, canceled claims 3, 4, 7, and 9, added new claims 20-34, and submitted various arguments traversing the rejections of record.

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Applicant's argument that the present invention is allowable over the prior art of record because applicant's alloy composition exhibits an unexpected favorable combination of roll-formability, sufficiently high strength, good corrosion resistance, and good weldability, which alloy a composite panel to be exposed to marine environments (arguments page 10-11 and 13), has not been found persuasive. Applicant has not detailed specific unexpected results with regard to the prior art of record. The examiner points out that in order to establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. *In re Hill*, 284 F.2d 955, 128 USPQ 197 (CCPA 1960).

The argument that Sale does not teach a corrugated structure comprising two parallel sheets with a corrugated lattice inbetween (arguments page 11-12) has not been found persuasive. As stated above, Sale does teach a side wall (#78) in Fig. 11 can be secured (by welding, column 4 lines 16-17), for instance, when the corrugated structure is used as a platform or floor structure (column 7 lines 31-35).

Applicant's argument that Murtha is drawn to the 7xxx series aluminum alloys (which no longer falls within the instant composition ranges) has been found persuasive (arguments page 12-13).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs- Morillo whose telephone number is (703) 308-4757. The examiner can normally be reached Monday through Friday from 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (703) 308-1146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

jcm 

June 11, 2003


GEORGE WYSZOMIERSKI
PRIMARY EXAMINER